

FACILITY REPORT
GENERAL ENVIRONMENTAL COMMENTS

AGENCY	SUMMARY OF COMMENTS
BUREAU OF RECLAMATION / DEPARTMENT OF FISH AND GAME	Include a more detailed analysis of human impacts and cultural resources, i.e., residents, impacts on recreational users in project sites, etc.
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental vs. traditional water use
	Discussion of fishery and habitat impacts upstream and downstream of the project area must be considered in more detail, i.e., engineering constraints, direct fisheries impacts, minimum capacity, cultural resources, terrestrial and aquatic habitat values.
	Explicitly define and weight the 5 factors considered during the screening process .
	Include results of the NMFS steelhead trout and coast-wide chinook salmon reviews. In addition, include results from the May 23, 1997 CDFG San Joaquin fall and spring run salmon review for potential listing.
	Provide a summary table listing rejected sites and reasons for rejection, i.e., sensitive ecosystems, etc
	Identify what habitat values and constraints cause the rejection of the reservoir,
	Criteria used to evaluate the environmental impact magnitude should be described in detail.
DWR's NORTHERN DISTRICT	A description of plant communities and specific environmental features, i.e., alkaline areas, large vernal pools, sandy soils, etc. are necessary for assessing the potential for species.
	Provide vegetation and wetland types and acreages (in table format).
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
	Botanical surveys, as per Service protocols, for federal species of concern should be conducted before any project construction efforts are undertaken. Timing of botanical surveys is crucial. Plant communities of special concern should be included.
US FISH AND WILDLIFE SERVICE / DEPARTMENT OF FISH AND GAME	A more detailed analysis of wetland impacts is needed, particularly what acreages would remain and what would be lost.
	Include mitigation costs for each affected habitat and costs for environmental documentation in the cost analysis of each project.
US FISH AND WILDLIFE SERVICE / DWR's NORTHERN DISTRICT	Further analysis of vernal pools and possible species supported in this habitat must be completed.
WATER RESOURCES / DEPARTMENT OF FISH AND GAME	Include a summary/overview of current land use in the proposed project areas.

FACILITY REPORT
COMMENTS REGARDING HUMAN IMPACTS

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
BUREAU OF RECLAMATION / DEPARTMENT OF FISH AND GAME	Include a more detailed analysis of human impacts and cultural resources, i.e., residents, impacts on recreational users in project sites, etc.
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental vs. traditional water use
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
WATER RESOURCES / DEPARTMENT OF FISH AND GAME	Include a summary/overview of current land use in the proposed project areas.

LAKE BERRYESSA	
DEPARTMENT OF WATER RESOURCES	The number of displaced residents and approximate relocation costs need to be included in the report. This info should be provided in the cultural resources section.
DEPARTMENT OF FISH AND GAME	Additional info is required to be able to evaluate upstream, downstream, and service area impacts.
	Include mitigation costs with estimated construction costs. Relocation costs for highways, resorts, homes and other facilities has not been included in the evaluation. Costs for shallow-water habitat should be addressed.
	Include a discussion on the impacts to recreational fishing.
US BUREAU OF RECLAMATION	No formal determinations of significance have been made of 144 prehistoric sites and 3 historic/prehistoric sites. 108 are possibly sig. and the remaining site records are not adequate to make an evaluation. 82 rural homesteads with unknown sig. exist.
	Determine the number of people living in the area and an estimation of relocation costs, and include this info with the cultural resources section.
MISC. SOURCES	Past discussions of enlarging Berryessa have created considerable concern and opposition in Napa County. An effort to discuss human impacts needs to be included.

LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	Mitigation and permitting for the prehistoric and historic cultural resource sites could be time consuming and costly and assoc. mitigation costs should be included.
	Comment on the "additional recreation activities" mentioned on page 4 that will be made available with construction of the project. What are some potential activities that would be created?

FACILITY REPORT
COMMENTS REGARDING HUMAN IMPACTS

AGENCY	SUMMARY OF COMMENTS
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MONTGOMERY RESERVOIR	
DEPARTMENT OF WATER RESOURCES	Begin the environmental considerations section with a discussion of current land use in the project area.
US BUREAU OF RECLAMATION	The Bureau has no records of archeological or historical sites for Montgomery. The Regional Information Center needs to be checked to see if any cultural resource surveys have been made for the study area.

SHASTA LAKE	
DEPARTMENT OF WATER RESOURCES	Some additional impact areas include: recreation industry around lake, Sac. River seepage and bank erosion problems, downstream fishery impacts (especially anadromous fisheries), and human impacts within the project area and in surrounding communities.
DEPARTMENT OF FISH AND GAME	Impacts associated with relocation and mitigation of residents, natural habitats, and cultural resources in the project area should be discussed.
	Include relocation impacts and costs for landowners and communities.
	Discuss the number of archeological and ethnographic sites that would be inundated with the smaller size enlargement.

THOMES-NEWVILLE	
DEPARTMENT OF WATER RESOURCES	Investigation of additional environmental impacts to Thomes Creek sediment and stream morphology, ground water recharge, human residents, etc. in the project vicinity is needed.
DEPARTMENT OF FISH AND GAME	Impacts associated with relocation and mitigation of residents, natural habitats, and cultural resources in the project area should be incorporated in the project analysis.
	Comment on the current land practices in the inundation area.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental vs. traditional water use
	Discussion of habitat impacts upstream and downstream of the project area must be considered in more detail, ie., engineering constraints, direct fisheries impacts, minimum capacity, cultural resources, terrestrial and aquatic habitat values.
DWR's NORTHERN DISTRICT	A description of plant communities and specific environmental features, i.e., alkaline areas, large vernal pools, sandy soils, etc. are necessary for assessing the potential for species.
	Provide vegetation and wetland types and acreages (in table format).
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
	Botanical surveys, as per Service protocols, for federal species of concern should be conducted before any project construction efforts are undertaken. Timing of botanical surveys is crucial. Plant communities of special concern should be included.
US FISH AND WILDLIFE SERVICE / DEPARTMENT OF FISH AND GAME	A more detailed analysis of wetland impacts is needed, particularly what acreages would remain and what would be lost.
US FISH AND WILDLIFE SERVICE / NORTHERN DISTRICT	Further analysis of vernal pools plant species must be completed.
WATER RESOURCES / DEPARTMENT OF FISH AND GAME	Include a summary/overview of current land use in the proposed project areas.

LAKE BERRYESSA	
DEPARTMENT OF WATER RESOURCES	Current vegetation areas add up to more than the new inundation area (47,600 acres vs. 43,600 acres).
DEPARTMENT OF FISH AND GAME	Additional info is required to be able to evaluate upstream, downstream, and service area impacts.
	The discussion on sensitive and listed plant species and communities needs to be updated. Some of the species listed as federally proposed have now been listed.
	There is no analysis of wetland impacts; ie., what acreage would remain and what would be lost. Specific maps and illustrations are needed to determine what wetlands are included so wetlands status may be determined. These impacts are considered serious.
	The shallow areas around the lake are designated agricultural, when in fact, they are seasonal wetlands that the Department has been trying to establish along with riparian forest.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
US FISH AND WILDLIFE SERVICE	Discuss the impact of complete removal of all valley land within the basin with its rich soils. This would result in significant habitat changes and a significant loss in diversity and stability for the area.
	The losses of half of the Butts Canyon Natural Area and most of the Cold Canyon Ecological Reserve, as well as other unsurveyed areas containing sensitive plants, indicate serious and unacceptable negative impacts.
MISC. SOURCES	A detailed description of the vegetation types (by acreage) within the reservoir site is necessary for the habitat analyses of both plant and wildlife species. This info is available from aerial photos at a minimum scale of 1"=1000 ft.
	Include a description of plant communities and specific environmental features, i.e., alkaline areas, large vernal pools, sandy soils, etc. This is necessary for assessing the potential for species. The Snelling area description is incomplete.
	The actual acreage of wetland types needs to be reconsidered.

COTTONWOOD CREEK	
US FISH AND WILDLIFE SERVICE	Service recommends that botanical surveys for Federal species of concern, as per Service protocols, and their potential habitat be conducted before any construction efforts are undertaken. Timing is crucial to ensure presence of species.
	Service recommends that the proposal include an analysis of the presence of and potential impacts to plant communities of special concern within the project area, including vernal pools.

LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	Project will significantly impact 21% of the world's sycamore alluvial woodland. This woodland is the highest quality site of this unique natural community type. It is a natural community given highest priority by DFG's Natural Diversity Database.
	Need analysis of mitigation costs assoc. with replacing 700 acres of mature sycamore forest. Cost will be significant.
	Loss of riparian zone on Los Banos Creek will result in losses of habitat and increased water temperature. Discuss these impacts on plant species that may be affected. Mitigation will be required.
	Analysis of wetland impacts, particularly what acreage would remain and what would be lost to this project needs to be included.
	A current survey of federal or state-listed plant species needs to be included for the LBG area.
	Do aquatic marsh areas exist in the area. No mention is made of them in the Section 404 jurisdictional wetlands.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
DWR's NORTHERN DISTRICT	Include the acreage data in table format.
	Include updated info from CDFG report on Sycamore Woodland habitat, such as the relative comparison of the LBG site to other stands of Sycamore Woodland.
	Direct impacts will eliminate portions of the populations of both the Arburua Ranch jewelflower and the recurved larkspur.
	Hydrologic changes to the salt Creek larkspur habitat could eliminate all of the population of recurved larkspur. A more complete discussion is needed.
	List "404" jurisdictional areas in table format including details of wetland types, presence of sensitive animal and plant species, etc.
US FISH AND WILDLIFE SERVICE	Recommends LBG be eliminated for the following reason: the presence of extensive, high quality and singularly, irreplaceable terrestrial habitat values.
	LBG has one of the oldest and most pristine sycamore woodlands in the state. These woodlands are impossible to replace and would take 200 years to reach the existing climax community if they were destroyed. This must be expressed in detail in this report.
	Need to evaluate the effects of retiring the 250,000 acres of toxic agricultural lands targeted in the 1990 SJ Valley Drainage Program in determining the need for new south of Delta storage and reservoir capacity.
	Recommends that botanical surveys for Fed. species of concern be conducted as per Service protocols and before any construction begins.
	Vegetation acreage data is known and should be included in table format. Some of the vegetation types are known to support sensitive plant species and the relative amounts of those habitats are critical to any ranking process.
	Need a more detailed analysis of wetlands area including descriptions of dominant plant species, presence of any large tracts of wetland type, presence of sensitive plant and animal species within wetland.
	List "404" jurisdictional areas in table format.

MILLERTON LAKE	
US FISH AND WILDLIFE SERVICE	Effects analysis of vernal pool habitat should be provided in the report.

MONTGOMERY RESERVOIR	
DEPARTMENT OF WATER RESOURCES	Begin the environmental considerations section with a discussion of current land use in the project area.
DEPARTMENT OF FISH AND GAME	The sizable vernal pool habitats and associated mitigation costs need to be addressed.
US FISH AND WILDLIFE SERVICE	How would this site contribute to the Bay-Delta ecosystem improvements?

Plants

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FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
MISC. SOURCES	The project would adversely affect one of the sixteen remaining pops of the federally listed endangered Hartweg's golden sunburst. The discussion of this species needs to be more complete.
	Provide size and types of vegetation acreages found in the project area.
	The level of description of the vegetation components is currently inadequate for a screening process.

RED BANK	
DEPARTMENT OF FISH AND GAME	The percentages of annual grassland for Dippingvat and Schoenfield reservoirs seem somewhat high.
US FISH AND WILDLIFE SERVICE	Service recommends that the proposal include an analysis of the presence of and potential impacts to plant communities of special concern within the project area, including vernal pools.

SHASTA LAKE	
DEPARTMENT OF FISH AND GAME	Identify the information source for the comments on vegetation size. Also, discuss the vegetation acreages and composition in terms of a smaller enlargement scenario.
	List the plant species with special State or federal listing and the types of wetlands that would occur within the smaller size enlargement.
DWR's NORTHERN DISTRICT	Quantify the acreages of vegetation and wetlands types (table format).
	Clarify if there are sensitive plant species within the project expansion area. Include the details of the overall impacts to these species.
	Provide a discussion on the relative amounts of suitable habitat for each sensitive plant species within the impacted area.
US FISH AND WILDLIFE SERVICE	Estimates in CALFED documents and estimates in the Service's records on the proposal are inconsistent. CALFED claims 30,000 acres and the Service claims 160,000 acres would be inundated by the proposal. This discrepancy must be reconciled.
	CALFED should demonstrate that developments will benefit the ecosystem and not just increase water supplies for water users.
	What are the mitigation requirements for the project? Service estimates have been about 162,000 acres. Mitigation costs would significantly increase construction cost estimates.

TEHAMA-COLUSA EXTENSION	
	Quantify the acreages of vegetation and wetlands types (table format).

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
DWR's NORTHERN DISTRICT	Give riparian habitats, which make up the 1% of land along the alignment, more detailed names (willow scrub or cottonwood, etc.)
	Provide a discussion on the relative amounts of suitable habitat for each sensitive plant species within the impacted area.
	Stating that no listed plant species have been recorded along the existing or proposed alignment is questionable. Few studies have been conducted in this area. Both alkaline areas and vernal pools occur in the area; habitat for many sensitive plants.
	Verify that the special status wetland habitat, Northern Claypan vernal pool, does indeed exist in the project area.

THOMES-NEWVILLE	
DEPARTMENT OF FISH AND GAME	Impacts downstream of the paskenta gage will have to be addressed and all existing habitats need to be identified and included in the report.
	Up- and downstream impacts must be identified. Changes in Thomes Creek flows and Sac. River diversions will have potential impacts on habitats. Impacts on upper Sac. River may affect Delta functions and habitats and should be discussed.
	Impacts to riparian vegetation associated with rivers and streams should be discussed. Fish and wildlife species will be indirectly affected by habitat loss due to inundation. Include associated mitigation costs.
	Add potential plant species occurring in the area that are found in the California native Plant Society (CNPS) database.
	Include a discussion of habitat changes associated with inundation.
	Comment on the current land practices in the inundation area.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
NORTHERN DISTRICT	Quantify the acreages of vegetation types.
	It needs to be determined whether serpentine rock is present in the project area (Colusa layia and Stebbin's madia may also be present).
	There are areas of seasonal marsh along Salt Creek which may be alkaline enough to support some of the Atriplex species. A survey late in the season when these species are identifiable must be conducted.
	Do any pops. of the Indian Valley brodiaea exist in the project area? Two pops. to the west of Paskenta have been found. According to the Sensitive Plant Handbook for the Mendicino Nat. Forest, these pops have taxonomic questions and must be studied.
	There are a number of vernal pools within and adjacent to the reservoir site. These pools contain typical flora and were sampled for invertebrates. The Water Quality section of the Northern District has this info.
	They are not aware of any northern cypress habitat in the project area.
US FISH AND WILDLIFE SERVICE	Further analysis of vernal pools and possible species supported in this habitat must be completed. The proposal does not fully consider the effects of the project on federally listed vernal pool crustaceans.
	Quantify the acreages of vegetation types.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental vs. traditional water use
	Discussion of habitat impacts upstream and downstream of the project area must be considered in more detail, ie., engineering constraints, direct fisheries impacts, minimum capacity, cultural resources, terrestrial and aquatic habitat values.
DWR's NORTHERN DISTRICT	A description of plant communities and specific environmental features, i.e., alkaline areas, large vernal pools, sandy soils, etc. are necessary for assessing the potential for species.
	Provide vegetation and wetland types and acreages (in table format).
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
	Botanical surveys, as per Service protocols, for federal species of concern should be conducted before any project construction efforts are undertaken. Timing of botanical surveys is crucial. Plant communities of special concern should be included.
US FISH AND WILDLIFE SERVICE / DEPARTMENT OF FISH AND GAME	A more detailed analysis of wetland impacts is needed, particularly what acreages would remain and what would be lost.
US FISH AND WILDLIFE SERVICE / NORTHERN DISTRICT	Further analysis of vernal pools plant species must be completed.
WATER RESOURCES / DEPARTMENT OF FISH AND GAME	Include a summary/overview of current land use in the proposed project areas.

LAKE BERRYESSA	
DEPARTMENT OF WATER RESOURCES	Current vegetation areas add up to more than the new inundation area (47,600 acres vs. 43,600 acres).
DEPARTMENT OF FISH AND GAME	Additional info is required to be able to evaluate upstream, downstream, and service area impacts.
	The discussion on sensitive and listed plant species and communities needs to be updated. Some of the species listed as federally proposed have now been listed.
	There is no analysis of wetland impacts; ie., what acreage would remain and what would be lost. Specific maps and illustrations are needed to determine what wetlands are included so wetlands status may be determined. These impacts are considered serious.
	The shallow areas around the lake are designated agricultural, when in fact, they are seasonal wetlands that the Department has been trying to establish along with riparian forest.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
US FISH AND WILDLIFE SERVICE	Discuss the impact of complete removal of all valley land within the basin with its rich soils. This would result in significant habitat changes and a significant loss in diversity and stability for the area.
	The losses of half of the Butts Canyon Natural Area and most of the Cold Canyon Ecological Reserve, as well as other unsurveyed areas containing sensitive plants, indicate serious and unacceptable negative impacts.
MISC. SOURCES	A detailed description of the vegetation types (by acreage) within the reservoir site is necessary for the habitat analyses of both plant and wildlife species. This info is available from aerial photos at a minimum scale of 1"=1000 ft.
	Include a description of plant communities and specific environmental features, i.e., alkaline areas, large vernal pools, sandy soils, etc. This is necessary for assessing the potential for species. The Snelling area description is incomplete.
	The actual acreage of wetland types needs to be reconsidered.

COTTONWOOD CREEK	
US FISH AND WILDLIFE SERVICE	Service recommends that botanical surveys for Federal species of concern, as per Service protocols, and their potential habitat be conducted before any construction efforts are undertaken. Timing is crucial to ensure presence of species.
	Service recommends that the proposal include an analysis of the presence of and potential impacts to plant communities of special concern within the project area, including vernal pools.

LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	Project will significantly impact 21% of the world's sycamore alluvial woodland. This woodland is the highest quality site of this unique natural community type. It is a natural community given highest priority by DFG's Natural Diversity Database.
	Need analysis of mitigation costs assoc. with replacing 700 acres of mature sycamore forest. Cost will be significant.
	Loss of riparian zone on Los Banos Creek will result in losses of habitat and increased water temperature. Discuss these impacts on plant species that may be affected. Mitigation will be required.
	Analysis of wetland impacts, particularly what acreage would remain and what would be lost to this project needs to be included.
	A current survey of federal or state-listed plant species needs to be included for the LBG area.
	Do aquatic marsh areas exist in the area. No mention is made of them in the Section 404 jurisdictional wetlands.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
NORTHERN DISTRICT	Include the acreage data in table format.
	Include updated info from CDFG report on Sycamore Woodland habitat, such as the relative comparison of the LBG site to other stands of Sycamore Woodland.
	Direct impacts will eliminate portions of the populations of both the Arburua Ranch jewelflower and the recurved larkspur.
	Hydrologic changes to the salt Creek larkspur habitat could eliminate all of the population of recurved larkspur. A more complete discussion is needed.
	List "404" jurisdictional areas in table format including details of wetland types, presence of sensitive animal and plant species, etc.
US FISH AND WILDLIFE SERVICE	Recommends LBG be eliminated for the following reason: the presence of extensive, high quality and singularly, irreplaceable terrestrial habitat values.
	LBG has one of the oldest and most pristine sycamore woodlands in the state. These woodlands are impossible to replace and would take 200 years to reach the existing climax community if they were destroyed. This must be expressed in detail in this report.
	Need to evaluate the effects of retiring the 250,000 acres of toxic agricultural lands targeted in the 1990 SJ Valley Drainage Program in determining the need for new south of Delta storage and reservoir capacity.
	Recommends that botanical surveys for Fed. species of concern be conducted as per Service protocols and before any construction begins.
	Vegetation acreage data is known and should be included in table format. Some of the vegetation types are known to support sensitive plant species and the relative amounts of those habitats are critical to any ranking process.
	Need a more detailed analysis of wetlands area including descriptions of dominant plant species, presence of any large tracts of wetland type, presence of sensitive plant and animal species within wetland.
	List "404" jurisdictional areas in table format.

MILLERTON LAKE	
US FISH AND WILDLIFE SERVICE	Effects analysis of vernal pool habitat should be provided in the report.

MONTGOMERY RESERVOIR	
DEPARTMENT OF WATER RESOURCES	Begin the environmental considerations section with a discussion of current land use in the project area.
DEPARTMENT OF FISH AND GAME	The sizable vernal pool habitats and associated mitigation costs need to be addressed.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
US FISH AND WILDLIFE SERVICE	How would this site contribute to the Bay-Delta ecosystem improvements?
MISC. SOURCES	The project would adversely affect one of the sixteen remaining pops of the federally listed endangered Hartweg's golden sunburst. The discussion of this species needs to be more complete.
	Provide size and types of vegetation acreages found in the project area.
	The level of description of the vegetation components is currently inadequate for a screening process.

SHASTA LAKE	
DEPARTMENT OF FISH AND GAME	Identify the information source for the comments on vegetation size. Also, discuss the vegetation acreages and composition in terms of a smaller enlargement scenario.
	List the plant species with special State or federal listing and the types of wetlands that would occur within the smaller size enlargement.
NORTHERN DISTRICT	Quantify the acreages of vegetation and wetlands types (table format).
	Clarify if there are sensitive plant species within the project expansion area. Include the details of the overall impacts to these species.
	Provide a discussion on the relative amounts of suitable habitat for each sensitive plant species within the impacted area.
US FISH AND WILDLIFE SERVICE	Estimates in CALFED documents and estimates in the Service's records on the proposal are inconsistent. CALFED claims 30,000 acres and the Service claims 160,000 acres would be inundated by the proposal. This discrepancy must be reconciled.
	CALFED should demonstrate that developments will benefit the ecosystem and not just increase water supplies for water users.
	What are the mitigation requirements for the project? Service estimates have been about 162,000 acres. Mitigation costs would significantly increase construction cost estimates.

FACILITY REPORT
AGENCY COMMENTS RELATING TO BOTANICAL ISSUES

AGENCY	SUMMARY OF COMMENTS
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TEHAMA-COLUSA EXTENSION

NORTHERN DISTRICT	Quantify the acreages of vegetation and wetlands types (table format).
	Give riparian habitats, which make up the 1% of land along the alignment, more detailed names (willow scrub or cottonwood, etc.)
	Provide a discussion on the relative amounts of suitable habitat for each sensitive plant species within the impacted area.
	Stating that no listed plant species have been recorded along the existing or proposed alignment is questionable. Few studies have been conducted in this area. Both alkaline areas and vernal pools occur in the area; habitat for many sensitive plants.
	Verify that the special status wetland habitat, Northern Claypan vernal pool, does indeed exist in the project area.

FACILITY REPORT
AGENCY COMMENTS REGARDING INVERTEBRATES

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
DEPARTMENT OF FISH AND GAME	The DFG Rarefind database should be queried for potential species in the area. DFG's Bay-Delta staff is willing to provide this info.
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
	Service recommends thorough and adequate biological surveys be conducted to determine the effects of the project on the species mentioned in the proposal. Analysis of the potential effects of the project on each of these species is appropriate.
	Further analysis of vernal pools and possible invertebrate species supported in this habitat must be completed.

LAKE BERRYESSA	
DEPARTMENT OF FISH AND GAME	This area has never been surveyed for listed invertebrate.

LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	Presence of the Valley elderberry longhorn beetle needs to be investigated.

MILLERTON LAKE	
DEPARTMENT OF FISH AND GAME	Include a discussion of invertebrate habitat changes associated with inundation.
US FISH AND WILDLIFE SERVICE	Effects analysis of vernal pool habitat should be provided in the report.

MONTGOMERY RESERVOIR	
DEPARTMENT OF FISH AND GAME	The sizable vernal pool habitats and associated mitigation costs need to be addressed.

FACILITY REPORT
AGENCY COMMENTS REGARDING INVERTEBRATES

AGENCY	SUMMARY OF COMMENTS
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RED BANK	
US FISH AND WILDLIFE SERVICE	Because of the presence of vernal pools, further consideration of potential effects of the project on federally listed vernal pool crustaceans must be included.

SHASTA LAKE	
US FISH AND WILDLIFE SERVICE	What are the effects of the Shasta Lake Enlargement on the animal species whose ranges are restricted to areas of northern California and Shasta Lake area (Shasta salamander, Shasta sideband snail, Siskiyou and Trinity Alps ground beetles, Shasta crayfish).

THOMES-NEWVILLE	
DWR's NORTHERN DISTRICT	There are a number of vernal pools within and adjacent to the reservoir site. These pools contain typical flora and were sampled for invertebrates. The Water Quality section of the Northern District has this info.
US FISH AND WILDLIFE SERVICE	Further analysis of vernal pools and possible species supported in this habitat must be completed. The proposal does not fully consider the effects of the project on federally listed vernal pool crustaceans.

**FACILITY DESCRIPTION REPORTS
AGENCY COMMENTS REGARDING FISH**

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental vs. traditional water use
	Discussion of fishery and habitat impacts upstream and downstream of the project area must be considered in more detail, i.e., engineering constraints, direct fisheries impacts, minimum capacity, cultural resources, terrestrial and aquatic habitat values.
	Include results of the NMFS steelhead trout and coast-wide chinook salmon reviews. In addition, include results from the May 23, 1997 CDFG San Joaquin fall and spring run salmon review for potential listing.
	A complete list of state and federally listed fish species must be provided.
	Impacts to riparian vegetation associated with rivers and streams should be discussed. Fish and wildlife species will be indirectly affected by habitat loss due to inundation. Include associated mitigation costs.
	Include a discussion of habitat changes associated with inundation and in what ways fish species might be impacted (transformation of shallow water habitat to deep and associated changes in soil types and nutrient levels, etc.)
US FISH AND WILDLIFE SERVICE	An effects analysis should be added, including direct, indirect, and cumulative effects. Additionally growth inducing, interrelated and interdependent effects should be clearly described and analyzed.
	Service recommends thorough and adequate biological surveys be conducted to determine the effects of the project on the species mentioned in the proposal. Analysis of the potential effects of the project on each of these species is appropriate.
SCREENING PROCESS MEETINGS	Include species lists in the documents to reflect the most recent info in the databases.
	Consider biological resources, not just listed species.

LAKE BERRYESSA	
DEPARTMENT OF FISH AND GAME	Direct fisheries impacts need to be addressed.
	Include a discussion on the impacts to recreational fishing.

COTTONWOOD CREEK	
US FISH AND WILDLIFE SERVICE	The statement in the Facility Description report suggesting benefits for Sacramento River and Delta resident fish due to higher flows is questionable and needs to be clarified.

**FACILITY DESCRIPTION REPORTS
AGENCY COMMENTS REGARDING FISH**

AGENCY	SUMMARY OF COMMENTS
LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	Changes in reservoir water levels would adversely impact many mammal species and loss of breeding and foraging habitat needs to be described. These impacts on fish would also need to be described.
	Loss of riparian zone on Los Banos Creek will result in losses of habitat and increased water temperature. Mitigation will be required.
	Fishery impacts need to be discussed in the relation to loss of habitat, increased water temp, decreased water quality and increased migration delays from reduced in-Delta flows.
US FISH AND WILDLIFE SERVICE	Water level fluctuations would reduce shallow water habitat and decrease water quality. These impacts on fish and associated mitigation needs to be addressed.
	Investigate habitat and fisheries impacts associated with a reduced volume of water downstream of the Paskenta gage.

MILLERTION LAKE ENLARGEMENT	
DEPARTMENT OF FISH AND GAME	Is it possible that the spillway could be used as a temperature control device to aid in salmonid spawning by taking water from deeper within the reservoir?

MONTGOMERY RESERVOIR	
DEPARTMENT OF WATER RESOURCES	Provide some info on potential impacts on Merced River fisheries.
DEPARTMENT OF FISH AND GAME	The actual depth of the reservoir is not given; however, a shallow reservoir will have high water temps which may produce significant impacts when released into the Merced River. Impacts to fisheries associated with this scenario should be described.
	Planning phase should address how operations of Lake McLure and Montgomery Reservoir will affect fish disease; presence, absence, linear, and spatial distribution of cold water habitat in the lower Merced River.

RED BANK	
DEPARTMENT OF FISH AND GAME	Specific affected salmon runs should be specified in the report.

**FACILITY DESCRIPTION REPORTS
AGENCY COMMENTS REGARDING FISH**

AGENCY	SUMMARY OF COMMENTS
SHASTA LAKE	
DEPARTMENT OF WATER RESOURCES	Some additional impact areas include: recreation industry around lake, Sac. River seepage and bank erosion problems, downstream fishery impacts (especially anadromous fisheries), and human impacts within the project area and in surrounding communities.
DEPARTMENT OF FISH AND GAME	A complete list of state and federally listed fish species must be provided.
US FISH AND WILDLIFE SERVICE	Would "new" water in Shasta be used for fisheries management? Benefits through increased water availability to improve flow management for fisheries is currently achieved with temperature control devises, and thus a redundant benefit.
	Impacts due to decreased flows in the Sac. River below the dam must be considered (flushing flows in the river, maintenance of wetlands adjacent to river, groundwater recharge, and Bay-Delta outflow during high flows).
	Cumulative effects could include increased diversions from the Sacramento River and associated fish entrainment and impingement, habitat loss from construction of conveyance facilities, and increased human developments

SITES-COLUSA	
DEPARTMENT OF WATER RESOURCES	There is possibly a population of golden trout in one of the tributaries of Sites Reservoir. Does DFG have any studies that state otherwise?

TEHAMA-COLUSA EXTENSION	
DEPARTMENT OF FISH AND GAME	Describe in greater detail the expected impacts to fish associated with increased water diversions.

THOMES-NEWVILLE	
DEPARTMENT OF FISH AND GAME	Up- and downstream impacts must be identified. Changes in Thomes Creek flows and Sac. River diversions will have potential impacts on fisheries and habitats. Impacts on upper Sac. River may affect Delta functions and habitats and should be discussed.
	Impacts downstream of paskenta gage will have to be addressed and all existing habitats need to be identified and included in the Facility Description Report.
	Specific affected salmon runs should be specified in the report.

**STORAGE & CONVEYANCE FACILITY REPORT
COMMENTS CONCERNING WILDLIFE**

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental (wildlife) vs. traditional water use
	The DFG Rarefind database should be queried for potential wildlife species in the area. DFG's Bay-Delta staff is willing to provide this info.
US FISH AND WILDLIFE SERVICE	An effects analysis should be added, including direct, indirect, and cumulative effects. Additionally growth inducing, interrelated and interdependent effects should be clearly described and analyzed.
	Biological surveys, as per Service protocols, for federal species of concern should be conducted before any project construction efforts are undertaken.
SCREENING PROCESS MEETINGS	Include species lists in the documents to reflect the most recent info in the databases.
	Consider biological resources, not just listed species.

LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	This project will significantly impact SJ kit foxes. Describe major impacts to the population in this area.
	Changes in reservoir water levels would adversely impact many mammal species and loss of breeding and foraging habitat would need to be mitigated.
	Due to habitat losses, the badger is listed by the DFG as a "species of special concern". Impacts on this species needs to be discussed further.
US FISH AND WILDLIFE SERVICE	Kit fox pop. jeopardized due to loss of gene flow, denning and foraging habitat, isolation of up to 65 kit foxes, impacts from recreation, road realignment, O&M, increased rodenticide. The regional keystone pop. would be lost.
	A more complete wildlife section needs to be included such as the one provided by the DFG's Natural Diversity Database.

MONTGOMERY RESERVOIR	
DEPARTMENT OF FISH AND GAME	Environmental flows are mentioned in this document; however, the majority of the document refers to traditional water uses. Environmental uses should be discussed and equally weighted with traditional uses.
US FISH AND WILDLIFE SERVICE	How would this site contribute to the Bay-Delta ecosystem improvements? What are some possible benefits to wildlife?

**STORAGE & CONVEYANCE FACILITY REPORT
COMMENTS CONCERNING WILDLIFE**

AGENCY	SUMMARY OF COMMENTS
REDBANK	
DEPARTMENT OF FISH AND GAME	Include some discussion of impacts of this project on the resident deer herd found within the Redbank area.
US FISH AND WILDLIFE SERVICE	An adequate biological assessment of the impacts to any of the proposed projects needs to include an effects analysis.

SHASTA LAKE	
DEPARTMENT OF FISH AND GAME	Is the estimate that 80% of available deer winter range may be lost an accurate statement? 80% of California or Shasta County or what? Put this loss in perspective with the total deer winter range in this area.
	Specify which species of warbler, vireo, and shrew may be found in the project area.
US FISH AND WILDLIFE SERVICE	The CVPIA Least-Cost Yield Increase Plan found 9 listed wildlife and 30 candidate species affected by the Shasta Enlargement (6 and 22 in the Facility Report). The CVPIA also found 72 miles of impacted streams not 42 as the Shasta Facility Report indicates.
	What are the effects of the Shasta Lake Enlargement on the animal species whose ranges are restricted to areas of northern California and Shasta Lake area (Shasta salamander, Shasta sideband snail, Siskiyou and Trinity Alps ground beetles, Shasta crayfish).

THOMES-NEWVILLE	
DEPARTMENT OF FISH AND GAME	Impacts downstream of the paskenta gage will have to be addressed and all existing habitats need to be identified and included in the report.
	Impacts to riparian vegetation associated with rivers and streams should be discussed. Fish and wildlife species will be indirectly affected by habitat changes or loss due to inundation. Upstream and downstream impact should also be considered.

FACILITY REPORT
COMMENTS CONCERNING FISH AND WILDLIFE

AGENCY	SUMMARY OF COMMENTS
GENERAL	
BUREAU OF RECLAMATION / DEPARTMENT OF FISH AND GAME	Include a more detailed analysis of human impacts and cultural resources, i.e., residents, impacts on recreational users in project sites, etc.
DEPARTMENT OF FISH AND GAME	Compare and comment on environmental vs. traditional water use
	Discussion of fishery and habitat impacts upstream and downstream of the project area must be considered in more detail.
	Include results of the NMFS steelhead trout and coast-wide chinook salmon reviews. In addition, include results from the May 23, 1997 CDFG San Joaquin fall and spring run salmon review for potential listing.
DWR's NORTHERN DISTRICT	A description of plant communities and specific environmental features, i.e., alkaline areas, large vernal pools, sandy soils, etc. are necessary for assessing the potential for species.
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
US FISH AND WILDLIFE SERVICE / DEPARTMENT OF FISH AND GAME	Include mitigation costs for each affected habitat and costs for environmental documentation in the cost analysis of each project.
US FISH AND WILDLIFE SERVICE / NORTHERN DISTRICT	Further analysis of vernal pools and possible species supported in this habitat must be completed.

REDBANK	
DEPARTMENT OF FISH AND GAME	Include some discussion of impacts of this project on the resident deer herd found within this area.
US FISH AND WILDLIFE SERVICE	Because of the presence of vernal pools, further consideration of potential effects of the project on federally listed vernal pool crustaceans must be included.
	An adequate biological assessment of the impacts to any of the proposed projects needs to include an effects analysis.

FACILITY REPORT
COMMENTS CONCERNING FISH AND WILDLIFE

AGENCY	SUMMARY OF COMMENTS
THOMES-NEWVILLE	
DEPT. WATER RESOURCES	Investigation of additional environmental impacts to Thomes Creek sediment and stream morphology, ground water recharge, human residents, etc. in the project vicinity is needed.
DEPARTMENT OF FISH AND GAME	Include results of the NMFS steelhead trout and coast-wide chinook salmon reviews. Include results from 1997 SJ fall and spring run salmon review.
	Costs associated with relocation and mitigation of residents, natural habitats, and cultural resources in the project area should be calculated and incorporated in the project costs analysis. (Ex: Lost wetlands, shallow water habitats, deer winter range)
	Up- and downstream impacts must be identified. Changes in Thomes Creek flows and Sac. River diversions will have potential impacts on fisheries and habitats. Impacts on upper Sac. River may affect Delta functions and habitats and should be discussed.
	Impacts downstream of the paskenta gage will have to be addressed and all existing habitats need to be identified and included in the report.
	Specific affected salmon runs should be specified in the report.
	The location, timing, and magnitude of flow changes needs to be discussed thoroughly.
	A complete list of state and federally listed fish species must be provided.
	The DFG Rarefind database should be queried for potential wildlife species in the area. DFG's Bay-Delta staff is willing to provide this info.
	Impacts to riparian vegetation associated with rivers and streams should be discussed. Fish and wildlife species will be indirectly affected by habitat loss due to inundation. Include associated mitigation costs.
	Include a discussion of habitat changes associated with inundation.
DWR's NORTHERN DISTRICT	There are a number of vernal pools within and adjacent to the reservoir site. These pools contain typical flora and were sampled for invertebrates. The Water Quality section of the Northern District has this info.
US FISH AND WILDLIFE SERVICE	Further analysis of vernal pools and possible species supported in this habitat must be completed. The proposal does not fully consider the effects of the project on federally listed vernal pool crustaceans.
	An effects analysis should be added, including direct, indirect, and cumulative effects. Additionally growth inducing, interrelated and interdependent effects should be clearly described and analyzed.

***FACILITY REPORT
COMMENTS CONCERNING FISH AND WILDLIFE***

AGENCY	SUMMARY OF COMMENTS
SITES COLUSA	
DEPARTMENT OF WATER RESOURCES	There is possibly a population of golden trout in one of the tributaries of Sites Reservoir. Does DFG have any studies that state otherwise?

FACILITY REPORT
AGENCY COMMENTS REGARDING BIRDS

AGENCY	SUMMARY OF COMMENTS
GENERAL COMMENTS	
DEPARTMENT OF FISH AND GAME	The DFG Rarefind database should be queried for potential wildlife species in the area. DFG's Bay-Delta staff is willing to provide this information
US FISH AND WILDLIFE SERVICE	An effects analysis should be including with direct, indirect, and cumulative effects as well as interrelated, interdependent and growth inducing effects.
	Upstream, downstream, and service area affects must be considered when facility operations are known.
	Service recommends thorough and adequate biological surveys be conducted to determine the effects of the project on the species mentioned in the proposal. Analysis of the potential effects of the project on each of these species is appropriate.

LAKE BERRYESSA	
DEPARTMENT OF FISH AND GAME	The inundation of heron rookeries needs to be discussed.

LOS BANOS GRANDES	
DEPARTMENT OF FISH AND GAME	This project will significantly impact SJ kit foxes and Swainson's hawks. Discuss the impacts to these species in more detail.
	Great blue heron rookeries are considered "special" by the DFG because of their association with a habitat that is declining in California. Discuss potential impacts to species and its habitat.
	A discussion of impacts to the long-billed curlew and sandhill crane, migratory bird species, that utilize the grassland within the project area needs to be included.

THOMES-NEWVILLE	
DEPARTMENT OF FISH AND GAME	Further discussion of waterfowl displacement and relocation onto the reservoir is needed.